

## Claims

- [c1] What is claimed is:
- 1.A post-metal-plasma-etching wafer cleaning process, comprising:  
providing a wafer having a naked metal structure thereon;  
dipping the wafer into a first cleaning vessel having a volume of basic solution therein; and  
after dipping the wafer in the first cleaning vessel, the wafer is then transferred into a second cleaning vessel to perform at least one cycle of a hot quick-dump-rinse (hot QDR) process.
- [c2] 2.The post-metal-plasma-etching wafer cleaning process of claim 1 wherein the hot QDR process comprises a step of injecting heated deionized (DI) water into the second cleaning vessel from bottom of the second cleaning vessel.
- [c3] 3.The post-metal-plasma-etching wafer cleaning process of claim 2 wherein the hot QDR process further comprises a step of bubbling the heated DI water with CO<sub>2</sub> for keeping the heated DI water in a weak basic state.
- [c4] 4.The post-metal-plasma-etching wafer cleaning process of claim 2 wherein the DI water injected into the second cleaning vessel is heated to a temperature of about 70 ° C to 80 ° C.
- [c5] 5.The post-metal-plasma-etching wafer cleaning process of claim 1 wherein the volume of basic solution is a volume of amine-based basic solution.
- [c6] 6.The post-metal-plasma-etching wafer cleaning process of claim 1 wherein the hot QDR process is carried out without using a scrubber positioned over the second cleaning vessel.
- [c7] 7.A method for preventing corrosion in the fabrication of integrated circuits, comprising:  
providing a wafer having a naked metal structure thereon; and  
executing a wet bench process over the wafer, comprising:  
dipping the wafer in a basic solution;  
performing a post-strip-rinse process after dipping the wafer in the basic solution;

performing at least one cycle of a hot quick-dump-rinse (hot QDR) process; and  
performing a deionized water (DI) overflow final rinse at room temperature.

[c8] 8.The method of claim 7 wherein the hot QDR process is carried out in a QDR tank.

[c9] 9.The method of claim 8 wherein the hot QDR process comprises a step of injecting heated DI water into the QDR tank from bottom of the QDR tank.

[c10] 10.The method of claim 8 wherein the DI water injected into the QDR tank is heated to a temperature of about 70 ° C to 80 ° C.

[c11] 11.The method of claim 7 wherein the basic solution is amine-based basic solution.

[c12] 12.The method of claim 7 wherein post-strip-rinse process utilizes NMP (N-methyl-2-pyrrolidone) containing solution.

[c13] 13.The method of claim 7 wherein the hot QDR process is carried out without using a scrubber positioned over the QDR tank.

[c14] 14.The method of claim 7 wherein the room temperature is approximately between 20 ° C and 30 ° C.